

REMARKS/ARGUMENTS

Favorable reconsideration of this application as currently amended and in light of the following discussion is respectfully requested.

Claims 1-20 are currently pending. The present Amendment amends Claims 1 and 12 and adds Claim 20. The changes to the claims are supported by the originally filed application, thus no new matter has been added.

In the outstanding Office Action, Claims 1-10 and 12-19 were rejected under 35 U.S.C. §103(a) as anticipated by Ito et al. (U.S. Patent No. 5,748,179, herein "Ito") in view of Nakanishi (U.S. Patent No. 5,818,561).

Initially, Applicants and Applicants' representatives thank Examiner Chien and Supervisory Patent Examiner Schechter for the courtesy of the interview conducted on July 7, 2006. During the interview, differences between the inventions of the rejected independent claims and the applied reference were discussed. The present response sets forth the following remarks which set forth the differences discussed in the interview. Accordingly, the Examiners agreed that the claimed invention is patentably distinct over the references cited in the current rejection, but also indicated that a further search would be necessary before any allowance is issued.

In response to the rejection of Claims 1-10 and 12-19 under 35 U.S.C. § 103(a) over Ito and Nakanishi, Applicants traverse the rejection.

Claim 1 describes a display device including a line terminal (see Fig. 2, element 12 as a non-limiting example) connected to both a lead line (13) and a terminal of a drive circuit (7)

mounted in the peripheral area of the insulating substrate (1) by an anisotropic conductive material (16) through a transparent conductive film (15). Further, an external line terminal (10) is connected to an external line (9) formed on a periphery of the peripheral area of the insulating substrate (1) and connected to a terminal of the drive circuit (7) by the anisotropic conductive material (16). The surface of the line terminal (12) to be connected to the transparent conductive film (15) is formed by a high resistance conductive film and the surface of the external line terminal (10) to be connected to the terminal of the drive circuit (7) by the anisotropic conductive material (16) is formed by a low resistance conductive film. Thus, a display device with superior electrical connection between the terminal of the drive circuit (7) and the terminal of the insulating substance (10) is thereby achieved. Amended Claim 12 is a method for manufacturing a display device similar to amended Claim 1.

The outstanding Office Action relies on Ito as describing the features of independent Claims 1 and 12. Ito describes a liquid crystal display device that comprises lines connected to pixels formed on an insulating substrate and a lead line (d2) connected to at least one of the lines in a peripheral area of the insulating substrate different from a display area comprising the pixels. Additionally, Ito describes a line terminal connected to a lead line (d2) and connected to a terminal of a drive circuit (BUMP) mounted in the peripheral area of the insulating substrate by a conductive material (ACF2), an external terminal (TM) formed on a periphery of the peripheral area of the insulating substrate, to be connected to an external unit (FPC), an external line (g1) connected to at least one of the external terminal (TM), and an external line terminal connected to an external line (g1) and connected to a terminal of the drive circuit (BUMP) by the conductive material (ACF2).¹

¹ Ito, Fig. 22 and Col. 4.

The outstanding Office Action states on Page 2 that Ito describes “a lead line (d1) is connected to at least one of the lines (PSV1),” where the “lines” are connected to pixels.

The PSV1 element of Ito is a passivation film made of SiN and does not correspond to a line connected to a pixel electrode as is described in Claim 1.

Further, on page 3, the outstanding Office Action states that Ito describes that an external line (d2) is connected to an external terminal (BUMP).

However, the line d2 of Ito is a lead line connected with a pixel electrode and does not correspond to an external line connected to an external terminal as is described in Claim 1. Further, the BUMP of Ito is to be connected to a bump of a drive circuit and, thus, does not correspond to the external terminal connected to the external line as is described in Claim 1.

In other words, as noted by the diagram found on page 4 of the outstanding Office Action, the display area (pixels) of Fig. 15 of Ito is connected to the IC by way of d2, while the FPC (external connection) is connected to the IC through d1 (transparent film). However, Claim 1 describes that a lead line is connected to lines connected to pixels and that a line terminal is connected to the lead line. Further Claim 1 describes that the line terminal is connected to the driver circuit (IC) through a transparent conductive film. Thus, Ito describes that the external line (d1) is connected to the IC through a transparent film not the pixel line (d2).

Additionally, on page 3, the outstanding Office Action states that Ito describes that an external line terminal (BUMP) is directly connected to a terminal of the drive circuit.

However, in Ito, the transparent conductive film (d1) is made of ITO and is formed on a low resistance lead line (g1) which is made of Al. In contrast, in the present invention, ITO is not formed on Al so as to lower the contact resistance.

In other words, as discussed in the interview, Claim 1 describes that the surface of the line terminal to be connected to the transparent conductive film (for example, reference numeral 12, Fig. 2) is formed by a high resistance conductive film, while in Ito the side of Fig. 15 to be connected to the display shows that the BUMP terminal is connected to transparent conductive film (d1) which is connected to g1 which is a low resistance layer made of A

Thus, Ito does not describe or suggest, "a display device comprising...a lead line connected to at least one of the lines in a peripheral area of the insulating substrate different from a display area comprising the pixels... an external line connected to at least one of the external terminals and external line terminals connected to at least one of the external lines and connected directly to a terminal of the drive circuit by the anisotropic conductive material, wherein a surface of the line terminal...is formed by a high resistance conductive film, and a surface of the external line terminal...is formed by a low resistance conductive film."

Therefore, Ito fails to teach or suggest every feature recited in Applicants' amended independent Claims 1 and 12, so that Claims 1-10 and 12-19 are patentably distinct over Ito. Accordingly, Applicants respectfully request reconsideration of the rejection under 35 U.S.C. § 102(b) based on Ito.²

Additionally, the outstanding Office Action relies on Nakanishi as curing the above noted deficiencies in Ito. However, Nakanishi fails to cure the deficiencies of Ito and thus independent Claims 1 and 12 and claims depending therefrom are patentably distinct over Ito and Nakanishi presented alone or in any proper combination.

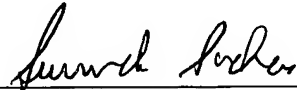
² See M.P.E.P. 2131: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also M.P.E.P. 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

Accordingly, Applicants respectfully submit independent Claims 1 and 12 and claims dependent therefrom are allowable.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-10 and 12-20 is earnestly solicited.

Respectfully submitted,

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